

CLAIMS:

1. A system for treating skin, comprising:

- (a) a source of radiation configured to irradiate a region of the skin;
- (b) at least a first pair of a first electrode and a second electrode, the first
5 and second electrodes being configured to apply a voltage to the skin;
- (c) an electrical meter configured to measure an electrical response of the
skin to a voltage applied across the electrodes;
- (d) a processor configured to adjust value of a parameter of the radiation
based upon a measured electrical response to a voltage applied across the
10 first and second electrodes.

2. The system according to Claim 1, wherein the value of the parameter is
adjusted in order to control skin temperature.

3. The system according to Claim 1 wherein the source of radiation is optical
energy.

15 4. The system according to Claim 1 wherein the source of radiation is a third
electrode and a fourth electrode configured to apply a voltage to the skin.

5. The system according to Claim 1, wherein the parameter is selected from
the group comprising:

- 1. irradiation intensity;
- 20 2. irradiation pulse duration
- 3. irradiation pulse frequency.

6. The system of Claim 4 wherein the voltage applied to the skin by the third
and fourth electrodes is in the radio frequency range.

7. The system according to Claim 4 wherein the first and second electrodes are
25 the same as the third and fourth electrodes.

8. The system according to Claim 1 wherein the electrical response of the skin
is skin impedance or a skin conductivity.

9. The system according to Claim 8 wherein the intensity, pulse duration, and/or pulse frequency of the radiation is decreased by the processor when the skin impedance decreases below a predetermined value.

10. The system according to Claim 8 wherein the processor is further configured to store in a memory a table assigning value of one or more parameters of the irradiation to each of one or more non-overlapping impedance ranges, and the value of a parameter of the radiation is adjusted to a value assigned by the table to an impedance measurement.

11. A method for treating skin comprising:

- 10 (a) irradiating a region of the skin;
- (b) applying a voltage to the skin;
- (c) measuring an electrical response of the skin to the applied voltage; and
- 15 (d) adjusting a value of a parameter of the radiation based upon the measured electrical response.

12. A method for treating skin, comprising:

- (a) a source of radiation configured to irradiate a region of the skin;
- (b) at least a first pair of a first electrode and a second electrode, the first and second electrodes being configured to apply a voltage to the skin;
- 20 (c) an electrical meter configured to measure an electrical response of the skin to a voltage applied across the electrodes;
- (d) a processor configured to adjust value of a parameter of the radiation based upon a measured electrical response to a voltage applied across the first and second electrodes.

25 13. The method according to Claim 12, wherein the value of the parameter is adjusted in order to control skin temperature.

14. The method according to Claim 12, wherein the source of radiation is optical energy.

15. The method according to Claim 12 wherein the source of radiation is a third electrode and a fourth electrode configured to apply a voltage to the skin.

16. The method according to Claim 12, wherein the parameter is selected from the group comprising:

1. irradiation intensity;
2. irradiation pulse duration
- 5 3. irradiation pulse frequency.

17. The method of Claim 15 wherein the voltage applied to the skin by the third and fourth electrodes is in the radio frequency range.

18. The method according to Claim 15 wherein the first and second electrodes are the same as the third and fourth electrodes.

10 19. The method according to Claim 10 wherein the electrical response of the skin is a skin impedance.

20. The method according to Claim 19 wherein the intensity, pulse duration, and/or pulse frequency of the radiation is decreased by the processor when the skin impedance decreases below a predetermined value.

15 21. The method according to Claim 19 wherein the processor is further configured to store in a memory a table assigning value of one or more parameters of the irradiation to each of one or more non-overlapping impedance ranges, and the value of a parameter of the radiation is adjusted to a value assigned by the table to an impedance measurement.

20 22. The method according to Claim 19 wherein the processor is further configured to store in a memory a threshold, and the value of a parameter of the radiation is adjusted to a predetermined value if the impedance is above a predetermined threshold, and is adjusted to 0 if the impedance is below the threshold.